**Annotation**

In this project, the efficiency of the boiler BKZ-160-100 was calculated and increased, also the SCADA system for operator control of the boiler was developed. Was carried out the analysis of the boiler, its efficiency was calculated, and large heat losses were found and eliminated large heat losses in the convective part of the boiler. The software component of the control of the steam boiler BKZ-160-100 in the environment GENESIS32 was developed for staff training. In the section "Economics", the costs of developing the software product and the economic effect of the implemented modernization were calculated. In the section "Life Safety", an calculation of the boiler acoustics was made and the necessary protection for the observation booth without voice communication over the phone is selected.